

DOCKETED

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Wave-Powered Desal Buoy Pilot Project

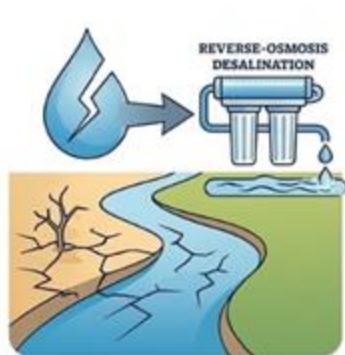
Presentation to the California Energy
Commission

Dragan Tutic, CEO & Founder

September 30th, 2026



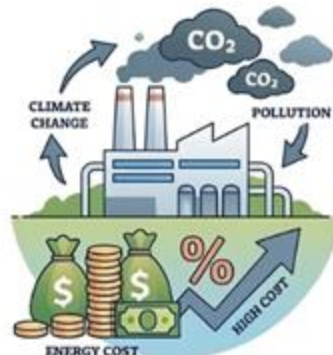
GLOBAL FRESHWATER CHALLENGES



1

Water scarcity

Disrupted natural water supplies forces coastal municipalities, communities and industries to turn toward desalination



2

High-cost & polluting alternatives

Conventional desalination's energy is the largest cost component and exacerbates climate change further, aggravating water access even more



3

Complex implementation

Integrating desalination involves technical know-how, engineering & system selections, permitting, commissioning, operations capacity for which water users don't have the capacity to oversee or navigate

Our Mission

- Making the oceans a **sustainable and affordable source of freshwater** for communities and industries facing water scarcity.

Our Solutions

- 1. Delivering sustainable water supply**
Solutions tailored to location and specific needs.
- 2. Providing fully integrated, turnkey systems**
we handle everything from installation to operation. Allowing clients to focus on what matters most to them while we ensure reliable, clean water.
- 3. Use proprietary & complementary wave & solar powered desalination technologies**
Enabling any coastal population to tap into the abundance of sea's & ocean's waters to secure freshwater while protecting the environment & marine life.

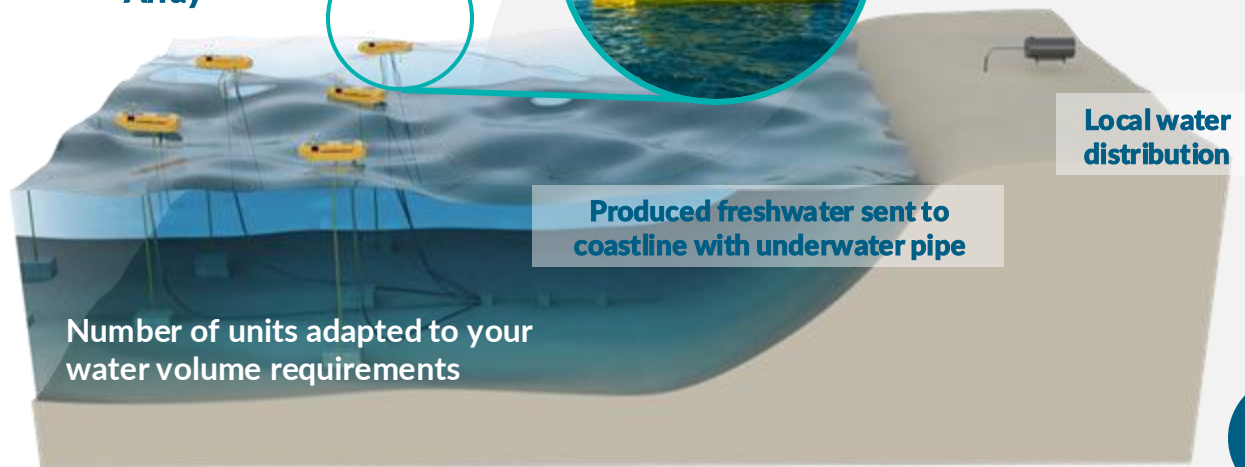


WAVE ENERGY SYSTEM OVERVIEW

Mechanically producing freshwater using only the motion of the waves to pump seawater through reverse osmosis membranes.



Modular Wave-Powered Desalination Buoy Array



Produced freshwater sent to coastline with underwater pipe

Number of units adapted to your water volume requirements



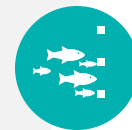
ZERO GHG EMISSIONS



ZERO LAND USE FOR DESALINATION



LOWER SALINITY & WELL DIFFUSED BRINE



WATER INTAKE SAFE FOR MARINE LIFE

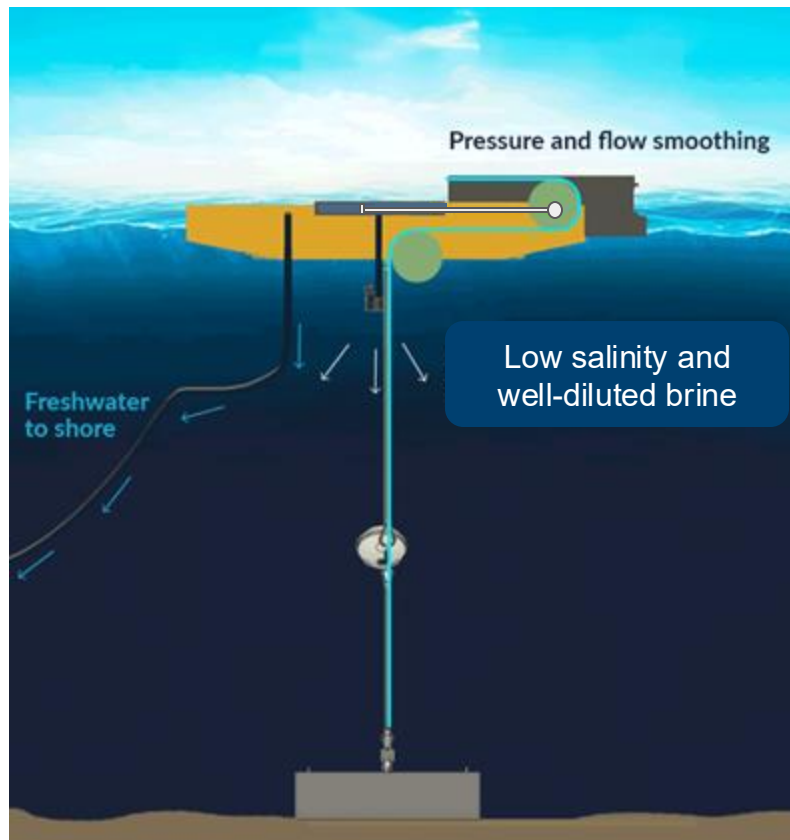


DECENTRALIZED - GRID INDEPENDENT



POTENTIAL PROMOTION OF MARINE LIFE

HOW IT WORKS



10 years of development with over 15 systems deployed at sea



AWARD WINNING TECHNOLOGY

GLOBAL FRESHWATER CHALLENGE WINNER

WORLD
ECONOMIC
FORUM

HCL

- Among the 10 winners named Top Innovators from hundreds of applicants
- Total of \$250k CAD in grant
- Member of UpLink Innovation Network

US DOE - WAVE TO WATER PRIZE GRAND PRIZE



- World renowned competition
- Total of \$1,3M CAD in winnings
- 1st place among 70 participants
 - Highest water production
 - Best water quality
 - Fastest assembly & deployment

AWARD WINNING TECHNOLOGY

PEERS RECOGNITION



2022
Innovation
Award



Innovative game-changing
desalination or water reuse
technical solution reaching a
commercial stage.

Voted by a panel of industry experts

WATER SCARCITY XPRIZE



مبادرة محمد بن زايد للماء
THE MOHAMED BIN ZAYED WATER INITIATIVE للماء

- Semi-finalist selection
- Water Scarcity XPRIZE competition
- Backed by the Mohamed Bin Zayed Water Initiative
- Global field of freshwater innovators



City of Fort Bragg partners with Oneka Technologies



City of Fort Bragg

Water Challenges



- Dependence on rainfall and river water for water supply
- Repetitive droughts strained the water supply
- Brackish water desalination plant added
- Water availability too low during droughts to supply local communities, requiring expensive trucking
- Self powered, affordable & sustainable water supply required

SUSTAINABLE DESALINATION PILOT PROJECT

Oneka Desalination Project

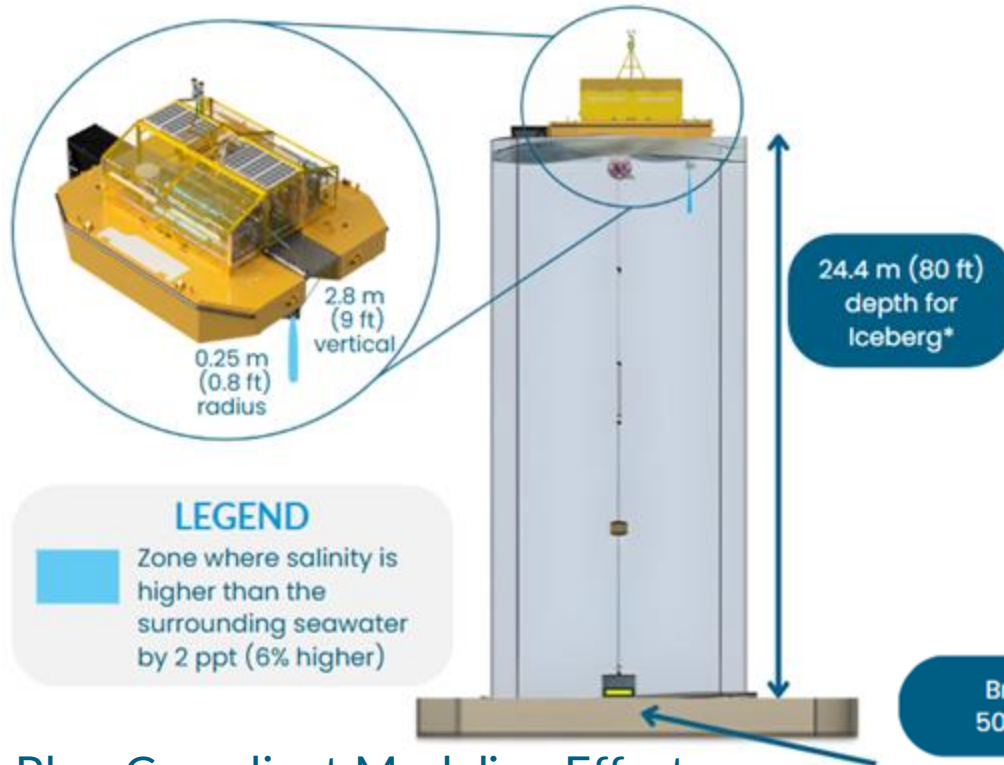


Oneka Buoy

Fort Bragg
Wastewater
Treatment Plant

ICEBERG BRINE DILUTION

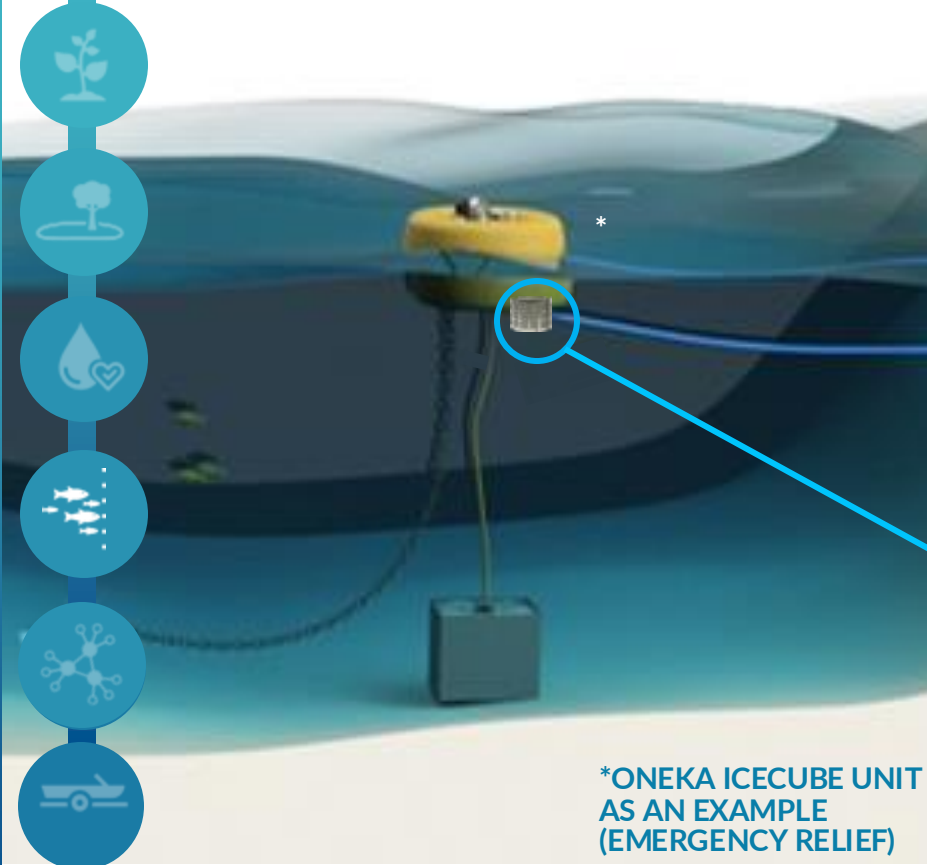
Without Waves and Sea Currents in Compliance with California's Regulations



Brine is diluted to ambient concentration within a 10-foot radius of the discharge point, consistent with brine modeling and the ISMND.

***Ocean Plan-Compliant Modeling Effort.

WATER INTAKE SAFE FOR MARINE LIFE



- ✓ Smaller than the Ocean Plan's requirement for intake screens.
- ✓ 60-micron-size intake holes to prevent harmful impact on ecosystems (adjustable)
- ✓ 60 micron is smaller than nearly all fish larvae at any stage including egg
- ✓ Backwashed to reduce maintenance and ensure enhanced suction protection



CARBON-FREE DESALINATION PROCESS

Our solution enables an annual reduction of 1 ton of CO₂e per cubic meter of daily water production capacity installed.

This number can vary depending on each country's energy mix.



Environmental benefits assessment based on ISO 14064-2:2019 for the Iceberg class unit - Updated in 2024

City of Fort Bragg Pilot Example

50 m³/d (13,200 GPD)



50 T of CO₂e avoided per year

Zero electricity, 100% mechanical solution

Fort Bragg's Sustainable Supply Initiative



TRANSITION

to a drought-proof
sustainable water solution



ALIGNMENT

with Fort Bragg's Blue
Economy Initiative



INCREASE

community resilience to
climate change

Gaps California Should Prioritize Filling

Where should California focus first to move wave-energy technologies, infrastructure, and facilities forward?

- Small scale coastal areas to begin
- Facilitated permitting (especially for smaller scale projects, less than 1 MGD)



Lessons Learned



What has development and operation across Oneka's deployments taught the team so far?

- Oceans is a difficult environment, going with multiple iterations at smaller scale was the right approach, it requires everything to go right, not quite feasible from the first time
- Ocean operations, commissioning can be the most expensive part of projects, even with everything on the surface, that can be an issue, especially in locations like California
- Looking at buying our our equipments and certifications to operate locally (as in Florida in the past)

Future Plans & Obstacles

What comes next for the Fort Bragg pilot, and what could get in the way?

- Oneka is looking with the city of Fort Bragg how a long term deployment could be financed for the city. Such communities don't necessarily have the fundings for projects, state funding is key as with other infrastructure projects in California. Potentially federal funding
- Great data will come for the project to inform future deployments in California



CLOSING QUESTION



If California could change one thing to accelerate deployment of wave energy — technologies, infrastructure, and facilities — what would it be?



Our answers :

- Easier permitting would be the most critical
Infrastructure for marine operations, only concentrated in key hubs. That could be a more practical solution for future deployments as well
- The need is there, the natural resource of waves and seawater too, we need to find the best way to put it into use providing water to the coastal communities



CONTACT US!

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